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7536 Spring Lake Drive, Bethesda, MD 20817 (301) 469-6688

September 1, 1993

Ms. Donna Searcy
Secretary
The Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

Subject: a) Continued Input Regarding Equipment Compatibility and Off-Premises Equipment (MM Docket 92-263)

b) Alarming Industry Trends Toward *More In-Home Equipment*

Dear Ms. Searcy:

I enclose a copy of a letter dated September 1, 1993, which I have provide to all of the Commissioners.

This is being provided to your office in case such a contact would be considered to be an "ex parte" contact. Please advise if you do not wish to receive copies of material of this type.

Very truly yours,

O. D. Page, P.E.

ODP/pg

encs.

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September 1, 1993

The Federal Communications Commissioners
1919 M Street, NW
Washington, DC 20554

Commissioners: The Honorable Reed Hundt, Nominee/Chairman
The Honorable James H. Quello
The Honorable Sherrie P. Marshall
The Honorable Andrew C. Barrett
The Honorable Ervin S. Duggan

Subject: a) Continued Input Regarding Equipment Compatibility and Off-Premises Equipment (MM Docket 92-263)

b) Alarming Industry Trends Toward *More In-Home Equipment*

I have been writing periodically to try to get someone in the FCC to notice that there are a series of technologies which should be considered and used by the Cable Industry (e.g., Scientific Atlanta's "Interdiction" and Phillips's "Mask", etc.). I predict that eventually this technology will prevail *if there is any consideration at all of the public interest.*

The Cable Industry has the resources and the vested interest in the ongoing deliberations by the Commission and the Committee to bring out its *heavy guns* — the ones who are expert in the art of manipulation of information and in arousing sympathy with a cry of "unfair" and "violation of First Amendment Rights", etc. My intent is to see that a more balanced perspective is brought to the table — by inputting another point of view based on many years of first-hand experience and hands-on involvement.

Off-premises interdiction technology is here; will pay for itself; and will reduce the cost to the subscribers. Furthermore, "off-premises" will cut pirating to a small fraction of what it is now (I still don't believe $6 billion per year) because there will be no need to get inside the home to prove such exists — and the offenders will be much more easily apprehendible and prosecutable — but people generally won't go off their premises to steal services.

The Cable Industry is not getting behind such technology, and it refuses to even consider the need for *off-premises* installation of such equipment. In fact, the Industry trend is toward more expensive in-home equipment, which "justifies" monopolistic control of such equipment. The result of course is higher and higher costs to the customer and more profits to the Cable Company.

Further indication of this trend (in the wrong direction) is the introduction of new equipment such as Jerrold's (General Instrument's) "Watch N' Record converter" (Attachment 3), which essentially *duplicates the features of television sets and VCRs that are already in the home.* VCRs, TV sets, and computers are already available and the cost to interface them with cable systems is far less, and the results will be better quality and reliability, at lower cost.

Cable-Operator-owned equipment should be removed from the home (except that leased by the subscribers voluntarily). The so called "drawbacks" of interdiction, as claimed by the Cable

Industry and their publications, form a *straw man*, for practical purposes. [My letter of June 18, 1993 to the Commission (copy enclosed) discusses this subject in some detail.] Again, shades of Carterfone.

I have attached the following selected pieces from various trade publications to further illustrate my point:

Attachment 1: "TECHNOLOGY MAY SOLVE COMPATIBILITY PROBLEMS"
Cable World, June 7, 1993. This piece introduces a new technology by MultiChannel Sciences, Inc. (MCSI) called "digital broadband descrambling", "to control all TVs in a household from a central point". *Perhaps outside of the home.*

Attachment 2: "HARDWARE '93 AND BEYOND"
Cable World, June 7, 1992. This piece offers comments on "reregulation"; "retransmission-consent fees"; "must-carry rules"; and "interdiction." The gist of the piece is that "Although reregulation has stirred its share of confusion and resentment in the cable industry, equipment manufacturers aren't forecasting doom." (Of course not: they're drooling over the potential new market for complicated and redundant in-home equipment!)

Attachment 3: "INTRODUCING THE JERROLD WATCH 'N RECORD™ CONVERTER"
An advertisement, dated June 16, 1993, in which they are providing a set-top "converter" which essentially *duplicates the features of television sets and VCRs that are already in the home!*

Attachment 4: My letter of June 18, 1993 to the Commission.

Gentlemen, I am aware of how busy you are these days, but some kind of acknowledgement of my input would be appreciated.

Very truly yours,

O. D. Page, P.E.

ODP/pg

encs.

cc: Ms. Donna Searcy
Mr. John Wong
Cable TV Labs, Inc.
NCTA
Scientific Atlanta
EIA

JUNE 7, 1993 / CABLE WORLD

NEWS

Technology May Solve Compatibility Problems

BY CARL WEINSCHENK

Engineers will get their first look during this week's National Show at technology that one manufacturer claims can eliminate many of the most vexing cable/consumer electronics compatibility problems.

Digital broadband descrambling, a technology long under development by Multichannel Communications Sciences Inc., will be displayed at the Jerrold Communications booth.

The technology, according to president Ron Katznelson, uses advanced signal-process techniques to individually restore scrambled signals while transparently passing channels transmitted in unscrambled, or "clear," status.

The system can pass digitally compressed signals, he said.

If it works, the equipment will combine the advantages of two common techniques while eliminating their major problems.

Interdiction's strong suit — delivering signals in the clear to consumer devices that let viewers use their in-home electronics gear to their fullest — will be combined with the signal security of scrambling.

Traditionally, one drawback of interdiction has been that signals are sent in the clear from the headend to the home, while scrambling has made it difficult or impossible to use consumer electronics features. The MCSI technology promises to bypass those problems.

Control

The technology also has been manufactured to control all TVs in a household from a central point.

Dan Moloney, Jerrold's director of subscriber products, said the MCSI display doesn't indicate that a deal between the two companies is imminent.

Separately, General Instrument Corp. has announced that Channelmatic, a manufacturer of ad-insertion equipment, has signed a letter of intent to incorporate GI's DigiCipher II compression technology in its equipment.

NEWS

Hardware '93 and Beyond

Vendors say rereg, telecoms advancements will spawn opportunity

BY CARL WEINSCHENK

Cable reregulation has battered cable systems nationwide, but equipment vendors? They're gearing up for the opportunities that reregulation is sure to bring about.

"It certainly is a setback for cable to have this reregulation," says C-Cor Electronics Inc. chairman Richard Perry. "(But) cable operators have to improve their technology and move forth in spite of those difficulties."

Adds Antec Network Service vice president Jack Bryant: "The year started out real strong. There is kind of a lull at this particular time. I suppose that there is some regrouping because of the regulations. The market will continue to be competitive whether it is regulated or not."

The cause for optimism: new business created, oddly enough, by reregulation, and a blurring of the lines that used to separate television, telephony and other segments of the telecommunications universe.

"Reregulation in and of itself is bad policy and not good for the (cable) industry and its suppliers," says David Robinson, director of Jerrold Communications' Cableoptics division. "But the negative impact of these tactical legal changes pales in contrast to the vast expansion of the strategic landscape in broadband communications."

Indeed, there appears to be new life in many corners of the industry:

■ The pledge by several major MSOs not to pay retransmission-consent fees could result in huge purchases of A/B switches needed to let televisions accept off-air signals.

Continental Cablevision, for instance, released a request for proposals in January, even though the document could very well have been more of a negotiating message to broadcasters than it was a call to manufacturers. To date, no contracts have been signed, and A/B switch makers are sending mixed signals on whether sales are up.

■ The must-carry rules may become a gold mine for filter and trap makers.

"We've sold a lot of tier filters, a lot," says Fred Whiting, the president of SOS Inc., which is known as Gameco Industries.

He says sales are up 50 percent over last year's and that the company has a backlog of orders extending about six weeks.

■ Interdiction — the Harold Stassen of cable technology — could finally become a winner.

"It's very, very likely you could use interdiction to control a broadcast-only tier, for example," says Gary Trimm, president of Scientific-Atlanta Inc.'s subscriber systems division.

In early February, the company signed a $6.5-million deal with Cablevision Systems Corp., which plans to roll out interdiction in 40 systems.

Manufacturers also are using their ingenuity in reregulation's wake.

S-A is touting "virtual channels" — a function that its 8600X converter can perform — a task that conceivably could alleviate some channel number/pricing pressures, according to the company.

The concept centers on a datastream that can carry sports scores, stock prices and other material that can be downloaded to the unit and made into a text "channel" without sacrificing a 6 MHz slot and incurring more programming costs.

■ General Instrument Corp.'s Jerrold division is negotiating with television set manufacturers in the Orient to create the stripped-down picture tube which would accommodate its "Joey," a module with customized circuitry to handle a number of consumer services, such as picture-in-picture. If it works, the concept could eliminate many electronic component compatibility problems.

Revenue streams

Reregulation also could focus more attention on hardware associated with the cable industry's unregulated segments.

For example, telephony and computer-related businesses could become even more attractive alternate revenues streams in the wake of new caps being placed on basic service revenue streams.

In the near term, segments such as pay-per-view, multiplexed premium channels, and advertising insertion may become more popular. In the longer term, reregulation, competition and new partnerships may push operators more toward not-yet proven businesses such as video-on-demand and near-video-on-demand.

Indeed, linking and expanding cable systems will create a flood of new services, including electronic program guides, personal communication services, tele-medicine, tele-commuting and tele-education.

The bottom line: Basic cable will no longer be operators' main revenue stream.

"Some of the companies that we have spoken with have agreed that although (reregulation) has an immediate negative impact on potential revenue stream, it is increasing the probability and the rate at which they move into related ancillary services," says Jerry Conn Associates Inc. president Tom Carbaugh.

Tele-Communications Inc., for one, is stepping up its rebuild plans to the tune of $2 billion in the next four years — hardly a sign of an industry in decline.

Likewise, Continental Cablevision's move to link its New England region headends will generate another wave of business.

Development

That push to develop more cutting-edge technology has been accompanied by an increasingly sophisticated world view, according to John Holobinko, vice president of marketing and strategic planning at American Lightwave Systems, a Continental project vendor.

"What I think we are seeing is that the MSOs that are spending are doing so with a very logical plan for the future and are much more disciplined in the methods of acquisition," he says. "They are looking to reduce the total number of vendors they are going with ... They are going away from a deal-to-deal-to-deal situation and going with those with which they can have a more long-term relationship."

Take the just-announced Time Warner Entertainment/U S alliance. Many cable industry observers, who expect more announcements like it soon, view it as a solid call to develop and perfect a new generation of equipment.

See **Hardware** *on page 180*

Vendors: Rereg, Telecoms Advancements Will Spawn Opportunity

Hardware *from page 22*

They also say traditional cable vendors can play a major role in this process, evidenced by the slew of companies exhibiting multimedia technologies at this week's National Show in San Francisco.

S-A, for example, last week announced it will use the show to introduce a digital storage and retrieval system — a key element of an interactive system.

Cable industry vendors also could very well find more business among regional Bell operating companies and other telephony service providers.

U S West's request for information to rebuild its in-region network went to several traditional cable suppliers. Nynex is shopping a similar request, while other huge telephone companies, such as Ameritech and Pacific Bell, probably aren't far behind.

As other industries begin to view cable's coaxial cable road into the home as a first-rate conduit, the companies that design and service it will continue to win more attention.

Buyouts

Finally, cable equipment manufacturers probably will prosper if buyouts become a model for forging cable/telco relationships.

If, for instance, cable operators want to get the kind of money that Southwestern Bell is paying for two Hasuer Communications systems in the Washington, D.C., suburbs — that is $650 million, or $2,900 a subscriber — they'll have to keep their systems in good repair. Again, that means more business for vendors.

"There have been quantum leaps in technology, including digital video, silicon microprocessors and fiber optics, combined with a worldwide recognition that the future platform for telecommunications is, as cable has said all along, broadband," says Jerrold's Robinson. "So the big players have looked at this little broadband pond and said, 'I'm going to jump in.' Luckily, the pond is growing by leaps and bounds and is going to be a huge ocean with plenty of room for everybody."

Although reregulation has stirred its share of confusion and resentment in the cable industry, equipment manufacturers aren't forecasting doom.

"Like most things in life, it has its good side and its bad side," says Jerry Conn Associates' Carbaugh.

Jerrold

General Instrument

General Instrument Corporation
Jerrold Communications Division
2200 Byberry Road
Hatboro, Pennsylvania 19040
Tel 215 674 4800

FCC Letter

June 16, 1993

New WATCH 'N RECORD™ will help systems deal with new subscriber requirements

Jerrold's new WATCH 'N RECORD converter, with dual tuning capability, gives you the chance to satisfy even the fussiest of your subscribers — and look good while doing it.

As detailed in the enclosed brochure, the WATCH 'N RECORD offers the ultimate subscriber convenience. Its dual tuning capability means subscribers can tape a scrambled channel while watching another. This capability also restores picture-in-picture capabilities for subscribers with high-end television sets.

As a marketing tool, the WATCH 'N RECORD offers several strengths. It actually encourages retention of pay services — and even the addition of some — because of its ease of use. Its built-in on-screen programming makes it easy and attractive to use. And the other features of addressability, including last-channel recall, favorite channel programming, parental lock-out and timed recording capability, make it the ultimate subscriber convenience.

Best of all, maybe, is the fact that the WATCH 'N RECORD converter is compatible with all the other Jerrold converters in your system. You won't need to change out every unit, because you'll be able to offer this only to those subscribers who want its convenience and features.

For a more detailed description of this breakthrough product, please read the enclosed brochure. For more information or additional copies, please fill out the attached card.

Sincerely,

John C. Burke

John Burke
Product Manager

NOW THE ULTIMATE CONVENIENCE

Introducing The Jerrold Watch 'N Record™ Converter

The Watch 'N Record converter is for subscribers who want everything their home entertainment systems have to offer — and more. It's also for operators who are looking for added services to build revenue.

The Watch 'N Record converter offers convenience and flexibility — for both the subscriber *and* operator.

Watch One Channel, Record Another

The Watch 'N Record converter is actually two converters in one. Contained within this sleek, modern unit are two totally independent tuners. This innovative design allows subscribers to watch one channel while simultaneously recording another, including scrambled signals.

Watch Two Channels At Once

The Watch 'N Record converter also helps subscribers who can't use the picture-in-picture capability of their high-tech TV sets because of their current converter. Through its two-tuner design, the Watch 'N Record restores this picture-in-picture feature. In fact, it's the only converter available today that can do this for your subscribers.

The Watch 'N Record converter will encourage subscribers to utilize more multi-pay services. The convenience and features of this converter are likely to result in increased use of Impulse programming, pay-per-view events, and premium channels. The result? More satisfied subscribers and greater revenues for you.

The unique two-tuner design restores the picture-in-picture feature many subscribers have with their TV sets.

On-Screen Menus For Even More Convenience

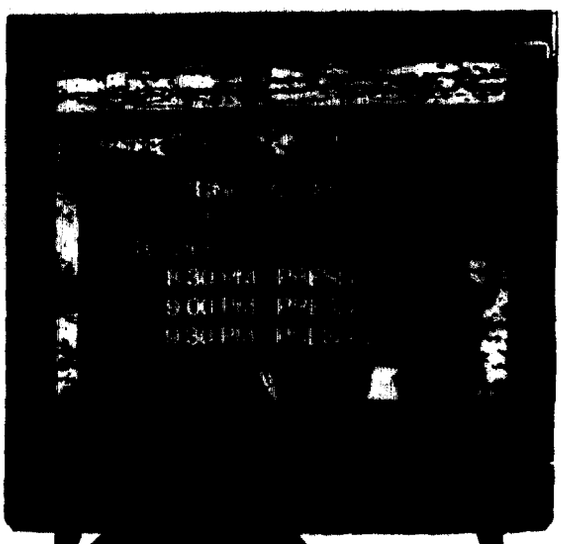
The Watch 'N Record's on-screen menus make television watching even more enjoyable. Its display feature capabilities are identical with the very popular CFT-2000 converter. Subscribers easily program their VCRs for taped delayed operation, set favorite channel programming, and establish parental control over selected channels.

Looking to tomorrow, the Watch 'N Record™ converter is designed to be compatible with many new and soon-to-be-released services, including electronic program guides and interactive technologies. The Watch 'N Record converter will assure that you're prepared for the advances of the '90s.

Subscribers select channels easier and quicker with convenient on-screen menus.

And that's not all. The Watch 'N Record converter also strengthens the line of communication between you and your subscribers. Expanded messaging capabilities allow you to directly target individual subscribers with specific messages, concerning everything from pay-per-view events to billing issues.

On-screen displays show your system's options and ordering instructions.



Remote Control Units Offer Flexibility

The Watch 'N Record converter is fully compatible with three different remotes:

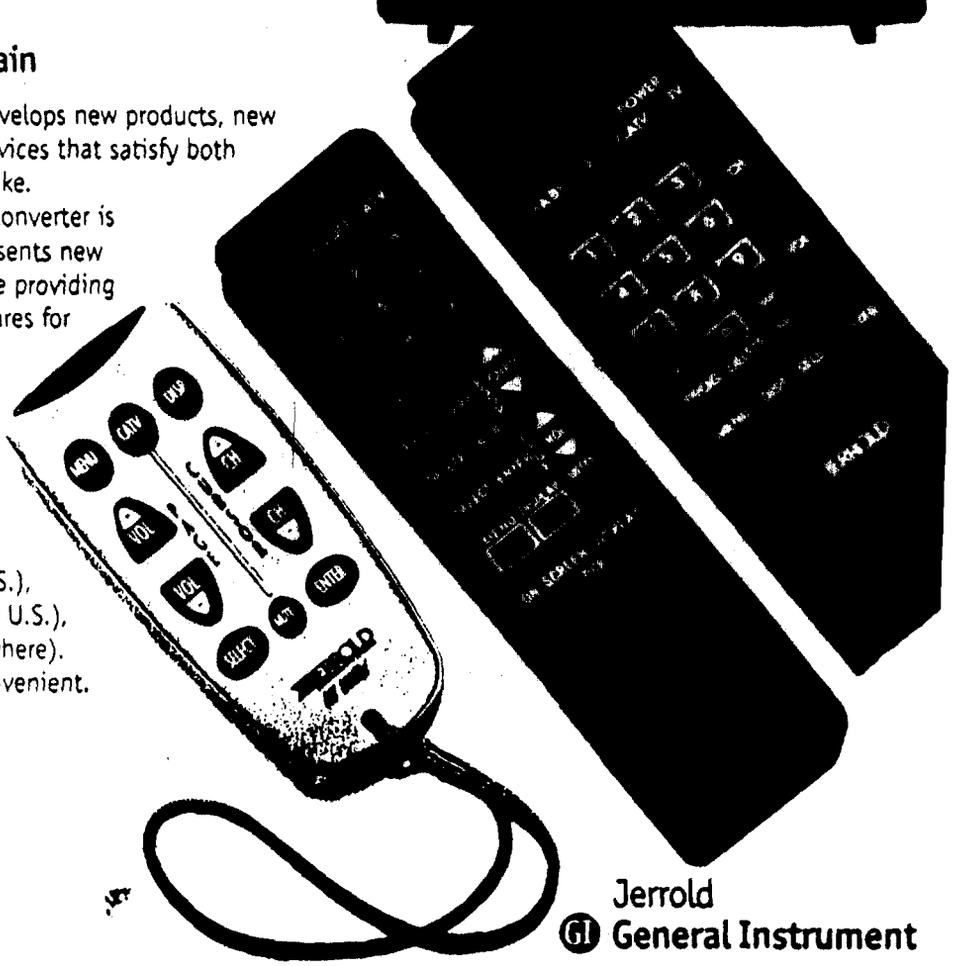
- MRC: Full, basic key pad that allows direct entry of channels
- TVRC: Controls both TV set and converter
- In-View: A limited key pad with only essential functions

Jerrold's Done It Again

Jerrold continually develops new products, new technologies, and new services that satisfy both operator and subscriber alike.

The Watch 'N Record converter is just such a product. It presents new opportunities for you while providing easy-to-use, valuable features for your subscribers. It's the ultimate convenience.

For additional information on the Watch 'N Record converter or any of our other products, please call 1 800 523-6678 (in the U.S.), 215-674-4800 (outside the U.S.), or fax 215-956-6497 (anywhere). Nothing could be more convenient.



Jerrold
GI General Instrument

O.D. Page, P.E. *Professional Engineers & Consultants*
7536 Spring Lake Drive, Bethesda, MD 20817 (301) 469-6688

June 18, 1993

Ms. Donna Searcy
Secretary
The Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

Subject: Cable Equipment Compatibility (MM-Docket 92-263 and Benefits Thereof

Dear Ms. Searcy:

Enclosed is a copy of a letter-statement that has been providedd to each of the Commissioners, dealing with the equipment-compatibility battle between the Consumer Electronics Manufacturers and the Cable TV interests.

Very truly yours,

O. D. Page, P.E.

ODP/pg

Attachments

O.D. Page, P.E. *Professional Engineers & Affiliates*
7536 Spring Lake Drive, Bethesda, MD 20817 (301) 469-6688

June 18, 1993

The Federal Communications Commissioners
1919 M Street, NW
Washington, DC 20554

Commissioners: The Honorable James H. Quello
The Honorable Sherrie P. Marshall
The Honorable Andrew C. Barrett
The Honorable Ervin S. Duggan

Subject: Cable Equipment Compatibility (MM-Docket 92-263) and Benefits Thereof

We have provided comments related to the differences that exist between the EIA and the NCTA in respect to the need for better compatibility of equipment between cable systems and consumer electronic equipment.

This has been a long-standing point of disagreement between these two organizations; attempts by the EIA Broadband Communications Committee more than 20 years ago were unsuccessful in bringing these two factions together.

The solution is use of present state-of-the-art off-premises control systems — no Cable-Operator-owned-equipment required to be in the home.

The benefits are overwhelming:

1. **Pirating: Most will be reduced to the vanishing point — most citizens will not go off their own premises to meddle with someone else's equipment. On-premises equipment is "fair game" to many so called law-abiding citizens.**

2. **Competition: Subscriber costs for on-premises equipment have been much too high — competition will hold these costs to subscribers.**

3. **Accessibility and Operating Costs: The Cable Operator doesn't need to go on premises, and if on-premises equipment is defective, the Operator can charge, just like the Phone Company. Further, the Cable Operator would not be responsible for any subscriber-owned equipment — a major savings perhaps of the order of "real" pirating costs. He could simply disconnect — or repair it.**

It seems eminently worthwhile to recommend again that *the Cable Industry continue and complete the development and application of a system which will not require any equipment owned by the Cable Operator to be placed inside the home of a subscriber (except for the inside wiring itself, and in fact that should belong to the home owner as well; refer to MM Docket 92-260)*

— i.e., an off-premises cable TV control system such as Mask, or Interdiction, and of course, negative trapping, the grandfather of them all.

There are several immediate and major benefits to be derived by going to an "off-premises" system, and some of these are listed below, in no particular order:

1. *Encourage Competition.* An objective view of the requirement by the Cable Operator that equipment be placed in the subscriber's home leaves much room to conclude that the Cable Operators want to control and monopolize the application of equipment in the subscriber's home — *in almost exactly the same way that the Telephone Companies were doing before the Carterfone Act became law after 20 years of fighting between the Telcos and would-be competitors!*

   As the attached article from the March 12, 1992 *Washington Times* illustrates, media will support, and back down from, their advertisers (customers). Such is further illustrated in additional pieces attached herewith:

   - Multichannel News, April 19, 1993
     The "reasoning" in this article is especially specious. The expression "concern over security": just does not follow; piracy losses in off-premises' security systems surely must be several orders of magnitude less than the 6 billion dollars per year that is being quoted today.

     Then, "...a typical cable system would actually lose $2.3 million over 9 years." Why 9 years? How many subscribers? Average of 2.3 million divided by 9 years = $256,000 per year? Compare to the claimed "$6 billion per year" for the entire Industry, or about $100 per year per subscriber (very high); 2,560 homes is the break-even point for 1 year.

   - Cablevision, April 19, 1993
   - Multichannel News, April 26, 1993

   Further, the following list of pieces, copies attached, show how the media will condemn any competitive threat to "their" advertisers (customers), in this case by trying and convicting "pirates" without due process.

   - Cable World, April 26, 1993
   - Multichannel News, May 10, 1993

2. *"Pirating".* The Cable Industry has claimed that pirating is costing it upwards of $6 billion per year! No documentation has come into view from here that would come close to supporting that figure, and this is up drastically from an "estimated" 4 billion as of last year, for which, also, no support is readily available. This number relates to more than $100 per subscriber per year, a bit hard to swallow. (Per-non-subscriber figure is higher.)

A major benefit of off-premises technology will be the drastic reduction in the amount of "pirating" that is going on.

The development of an off-premises system, such as is used now by the Telephone Industry (a very close analogy but not the same technology) and a very few Cable Operators (except traps; see below), *will resolve most of the piracy problems. Drastically fewer subscribers will go outside their homes to "steal" programming; equipment in the house is "fair game"!* (And, by the way, telephone companies will be competing with the CATV Industry on that same level playing field, i.e., probably no special equipment in the subscriber's home.)

An application of a percentage of that $6 billion — or perhaps 10 or 20% of one year's piracy loss, as claimed by the Cable Industry, would indeed go a long way toward the perfection of a viable off-premises channel-control system.

3 *The technology is available* to permit and to provide for a means for the Cable Operator to provide Cable TV services into the home in the clear without placing any kind of equipment or "boxes" in the home.

Cable Operators claim that such is not possible; it is, and at least two companies are providing equipment which will perform this function: Scientific Atlanta and Phillips (Magnavox). And, don't overlook "negative trapping."

4 *Technology for controlling signal reception from outside the home has been offered on the market for several years, including addressability.*

There is considerable reason to question whether or not the Cable Industry *really has attempted to apply this technology*. Obviously, if the Cable Companies kept their equipment out of the home, third-party suppliers could come in and supply that equipment in competition with the Cable Companies, but of course the Cable Companies, like anyone else, do not want any competition at all.

"Cable Labs," funded by the Cable Industry, does not have one single project or one single dollar allocated toward the objective of making it possible to serve subscribers completely from outside the home, similar to what the Telephone Industry does now. See the attached piece from *International Cable*, February 1993.

At least two leading suppliers are now on the market with what would appear to be workable "off-premises" systems: Scientific Atlanta with their Interdiction system and Phillips with their Mask system. It is quite reasonable to expect that such technology could have and would have been perfected quite some time ago, had the Cable Industry really embraced the concept.

5. *Financial benefits will accrue to Cable from use of off-premises technology.* There have already been some real benefits derived and recognized from the use of this so called "off-premises" technology (a term that will be used here to describe Interdiction, Mask, Negative Traps, and other such technologies that are offered today). For one thing, service charges

have dropped surprisingly. For another, (*and the Cable Operators do not wish to admit this*), the Cable Operators will save a whole lot of money because third-party equipment will not cost the Cable Operator anything, and the Cable Operator will not be responsible for the maintenance of such third-party equipment (although the Cable Operator may wish to provide the channel-control programming for such third-party devices as may use addressable technology). And in one or more instances, penetration is up and costs are down. See also the attached pieces from Multi-Channel News (date unknown) and Cable World (5/24/93), listing the benefits of "interdiction."

In the past, the Cable Industry media have been notably slow to encourage the use of off-premises technology; their "customers" wouldn't like it? See again the attached piece from the *Washington Times* dated March 12, 1993.

6. *Consumer Electronics Equipment — Capabilities can be utilized fully in Cable Systems using off-premises technology, delivering clear signals to the home.*

   The Cable Industry is addressing this whole matter from the standpoint of trying to continue to control what is placed inside the subscriber's home — basically an *un-American* concept.

7. *Special Communications Infrastructure Equipment* can be handled the same way; as with Telephone Companies, the subscriber can go to an alternate source, providing his own terminal. *There is no need for the Cable Industry to try to convert the TV set into a computer! IBM and Apple have done it*, and millions of subscribers have them.

   It's a mistake to allow the Communications Industry (i.e., cable companies, computer companies, etc.) to contemplate placing their equipment in the home (leased equipment would belong to the subscriber); subscribers should install their own terminals — to Cable-Operator interface specifications.

   Analogy has been made between the Cable Company's box, the gas meter, and the electric meter, etc. Such an analogy is not now appropriate, but, *and in fact*, the analogy could be perfected by utilizing exactly this off-premises type of technology as provided by at least two manufacturers, and the control box, outside the home, can be related very closely to the gas meter, water meter, and the electric meter, all of which are also "outside" the homes, i.e., in practically all cases the meter, or the electronics performing that function, is not located inside of the customer's premises. Also, the "original" control system, *negative trapping* is an immaculate example.

The Cable Industry may be increasing costs to the subscriber drastically, by (1) unnecessarily complicating the hardware, (2) leaving themselves open to "$6 billion per year" in theft or piracy losses, and (3) charging monopoly prices. The current "plant configuration" for controlling copyrighted material is a disaster (somewhat comparable to standing up in a hammock).

And *note again that the Cable Industry "invented" the first immaculate off-premises control system, the negative Trap — and this device is still very much in use today.*

I invite your attention also to a slightly petulant letter which I wrote to Jay Levergood at Scientific Atlanta (copy attached). I was totally taken aback by the reaction of his people down there when I suggested to them that their interdiction system could be perfected and offered as a solution to the FCC for the serious problem of equipment compatibility between the consumer electronics industry and the Cable Industry. (Phillips now offers an off-premises system called "MultiMask.")

I also invite your attention to an article written by Mr. Michael Schrage and published in the February 12, 1993 issue of the Washington Post (also the Los Angeles Times). Mr. Schrage makes a very clear case, for a journalist, for getting that stuff "out of the home"

RECOMMENDATION: FORM AND IMPLEMENT A TECHNICAL COMMITTEE

This matter is not going to be resolved in any reasonable period of time (perhaps even in a reasonable lifetime) if the EIA and the NCTA are allowed to continue to "duke it out" over who is going to specify the configuration of whose equipment! The Cable Operator has no business or need to try to tell the manufacturers of consumer equipment what has to be done to make consumer equipment compatible with cable. Likewise, manufacturers of consumer equipment have developed their equipment for use within the home, for open-reception of whatever channels are available (having already made concessions involving additional channel capacity, shielding, etc.), and should not have to dictate in-home Cable Company equipment design.

What is needed is something that the FCC has done successfully many times before, such as, the TV Committee that selected the NTSC signal format; and the FCC Technical Advisory Committee (C-TAC) which provided such cable regulations as were promulgated in the '70s; and the special committee that was formed by the FCC and the FAA to deal with signal leakage. This is of course to appoint a Committee. The Committee might perhaps possibly be better staffed by senior engineers from the Industry, although there would certainly be something to be said for regulatory, administrative, and legal representation as well. *Any Competitors should be evenly represented on such a committee.*

The purpose of the committee would be to set forth interface specifications between the cable signals coming to the home and the consumer products that are already owned by the subscriber and in the home. It appears that the burden of these modifications may well fall on the Cable Industry, but the savings to be derived over a long term by the Cable Industry (see again the attached articles from *MultiChannel News* (date unknown) and Cablevison (5/24) should far more than offset any additional initial cost that might be borne at this time. Many manufacturers will then commit immediately to additional R&D funds to bring about the design of suitable off-premises equipment that can be used by cable companies. (Now, however, the equipment manufacturers are somewhat reluctant to come in and promote any off-premises equipment, because of the highly-political nature of the relationship between the Cable Operators as customers and the equipment manufacturers as suppliers.)

The bottom line, then, is that something has to be done to get the Cable Operators' specially-defined equipment out of the home; open the subscriber equipment market to real competition; standardize the method of delivering services while making the entire system many times more secure; and to stop this propaganda that is being promulgated by the Cable Industry that anyone who makes a device to go into a subscriber's home without the "approval" of the Cable Industry is a "pirate."

The above is respectfully submitted.

Very truly yours,

O. D. Page, P.E.

ODP/pg

cc:

Mr. John Wong
Dr. Richard Green, Cable TV Labs, Inc.
NCTA

Attachments:

Washington Times, March 12, 1992
MultiChannel News, April 19, 1993
Cablevision, April 19, 1993
MultiChannel News, April 26, 1993
Cable World, April 26, 1993 (piracy)
MultiChannel News, May 10, 1993 (piracy)
International Cable, February 1993
MultiChannel News, (date unknown) (interdiction)
Cable World, May 24, 1993 (interdiction, payoff)
Article by Michael Schrage (February 12, 1993 - Washington Post)
Letter to Scientific Atlanta, Jay Levergood